

## REMARKS

This submission is in response to the Official Action dated May 21, 2001. Claims 1-45 are pending. Reconsideration of the above identified application in view of the following remarks is respectfully requested.

The Examiner has required election of one of the following group of claims:

- I. Claims 1-6, drawn to Presenilin Associated Membrane Protein (PAMP) and PAMP amino acid sequences;
- II. Claims 7-17 and 29, drawn to PAMP nucleic acid sequences;
- III. Claims 18-24 and 42, drawn to transgenic animals containing PAMP;
- IV. Claims 25-28 and 30, drawn to animals expressing endogenous PAMP;
- V. Claims 31-36, 43-45, drawn to systems for measuring PAMP activity and methods for identifying PAMP modulators; and
- VI. Claims 37-41, drawn to methods for detecting PAMP mutations.

In the Office Action, the Examiner contends that the inventions are distinct because of various alleged reasons, *e.g.*, that different methods and reagents would be necessary to practice the claims of the respective Groups I-VI, and divergent fields of search are required for the respective Groups. In order to be fully responsive

to the Requirement for Restriction, applicants hereby elect, with traverse, to prosecute the claims of Group II (claims 7-17, and 29).

Although applicants are making the above election to be fully responsive to the Requirement for Restriction, applicants respectfully traverse the Requirement and reserve the right to petition therefrom under 37 C.F.R. § 1.144. In particular, applicants respectfully request reconsideration of the Restriction Requirement to allow prosecution of all pending claims in the same application, or, in the alternative, modification of the Requirement to allow prosecution of more than one of the above groups, for the reasons provided as follows.

Under 35 U.S.C. § 121, "two or more independent and distinct inventions . . . in one application may . . . be restricted to one of the inventions". Inventions are "independent" if there is no distinct relationship between the two or more subjects disclosed" (MPEP 802.01). The term "distinct" means that "two or more subjects as disclosed are related . . . but are capable of separate manufacture, use or sale as claimed, AND ARE PATENTABLE (novel and unobvious) OVER EACH OTHER" (MPEP 802.01, July 1988) (emphasis in original). However, even with patentably distinct inventions, restriction is not required unless one of the following reasons appear (MPEP 808.02):

1. Separate classification;
2. Separate status in the art; or,
3. Different field of the search.

Moreover, according to Patent Office examining procedures, "[i]f the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions" (MPEP 803) (emphasis added).

Applicants respectfully submit that the Groups I-VI fail to define inventions that warrant separate examination and search because the claims of all groups are unified by the same novel feature, namely PAMP. The present claims thus represent a web of knowledge and continuity of effort that merits examination in a single application.

For example, claims 7-17, assigned to claim Group II by the Examiner, all depend directly or indirectly from Claim 1, which is the only independent claim of Group I. Claims 7-17 thereby incorporate all features of claim 1. The search and examination of each group is therefore, by necessity, co-extensive, and in any event would involve interrelated art.

In addition, the Examiner has defined the same class and subclass to be searched for Groups III and IV, namely class 800, subclass 8+. Applicants submit that these two claim groups also share both search field and status in the art to a substantial degree, thereby warranting examination in the same application.

In light of the foregoing arguments, it can be concluded that the claims all share all the essential features of the invention; PAMP. In particular, provisionally elected Group II incorporate, by dependency, the essential features of the claims of

Group I. Hence, it is believed that a single search of the features of the subject matter recited in the claims of Group II would necessarily and unescapably include a search of the subject matter of the claims of Group I. Moreover, the assignment of claim groups III and IV to the same class and subclass establishes substantial unity of the subject matter of Group III and IV.

Applicants respectfully submit that the groups designated by the Examiner fail to define methods that warrant separate examination and search, especially with regards to Groups I and II and Groups III and IV. Thus, Applicants believe that the search and examination of the entire application, or, in the alternative, claim Groups I and II, and claim Groups III and IV, can be made without undue burden on the Examiner. Accordingly, applicants respectfully request that the Examiner withdraw the Requirement for Restriction and examines all of the pending claims in a single application, or, alternatively, withdraw the Requirement for Restriction with regards to Groups I and II and/or III and IV.

The Examiner has also required election of one of the following species:

- i. Human, mouse, *D. melanogaster*, and *C. elegans* amino acid (group I) or nucleotide (group II) sequences; and
- ii. Human PS1, human PS2, or human  $\beta$ -APP (group III).

In response, Applicants elect the human PAMP polynucleotide sequence

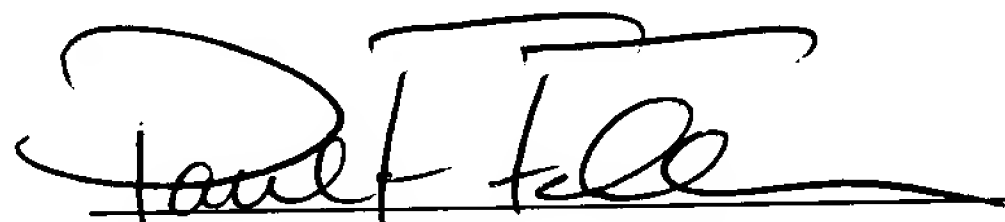
(SEQ ID NO:13) for claim Group II. In order to advance prosecution should the examiner decide to rejoin Groups I-VI, Applicants hereby elect the following species; human PAMP polypeptide sequence (SEQ ID NO:14); and human presenilin I.

### CONCLUSION

Applicants request entry of the foregoing remarks in the file history of this application. In view of the above arguments, withdrawal or modification of the Requirement for Restriction is respectfully requested, and an early action on the merits is courteously solicited.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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